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EXAMINER

LUK, EMMANUEL S

ART UNIT

PAPER NUMBER

1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1. Claims 1-11 are pending.
2. The arguments set forth by the applicants have been considered and are persuasive. However, a new rejection has been made that addresses the arguments, particularly, the vertical movement of the rotational turret that is used for post molding of the molded articles.

In this case, the consideration of the limitations of the turrets as shown by the applicants, the means for the horizontal and vertical translation is noted, however, the claimed structure itself does not specify to the exact structure of how this is accomplished, thus the movement of the turret as it rotates can be considered having the articles moved from a different positions as being moved vertically and horizontally depending upon the plane of reference. In addition, Domodossola teaches the vertical movement of the cooling turret 34 (see Figures 5 and 6) in which the turret moves from a higher position to a lower position prior to depositing the molded articles upon a mandrel block (similar to an extraction device as the article are then transported to the next station).

In regards to the extraction table below the rotary turret, the van Manen reference 2001/0019730 teaches the movement between an upper and lower position in which the extraction table is brought to remove the articles from the rotary turret, the extraction table having grasping elements with slots and teeth for gripping the articles (see Figure 6). This feature is incorporated to the new reference and the new rejection

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of Coran in view of van Manen and Domodossola teaches the claimed apparatus and process

Claims 1 and 8 have further been rejected under 35 U.S.C. 112, 2nd paragraph due to the claim improperly invoking means plus function pursuant to 35 U.S.C. 112, sixth paragraph.

3. Claims 1 and 8 have failed to invoke means plus function pursuant to 35 U.S.C. 112, sixth paragraph. Where means plus function language is used to define the characteristics of a machine or manufacture invention, claim limitations must be interpreted to read on only the structures or materials disclosed in the specification and "equivalents thereof." (Two en banc decisions of the Federal Circuit have made clear that the Office is to interpret means plus function language according to 35 U.S.C. 112, sixth paragraph. In the first, *In re Donaldson*, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994), the court held:

The plain and unambiguous meaning of paragraph six is that one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure.

In claim 1, between lines 11-15 of the page, the claim states "means to hold" and "means which permit", these are improper invocation of means plus function. In claim 8, the "means of gripping" is improper.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim improperly invokes means plus function and has stated "means to hold" and "means which permit it to effect", these are indefinite as it is unclear what the feature is directed to and since it does not properly invoke means plus function.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coran in view of van Manen (2001/0019730) and Domodossola (6143225)

Coran teaches the claimed apparatus having a two mold halves (45), extraction arm 2, revolving turret (3) with cool down cups (6), as seen in Figures 1 and 9-19, the turret revolves about a horizontal axis and the objects permit the preforms to be collected and cooled and then dropped down below, see Figure 18. The preforms are collected by collection means [0080].

Coran fails to teach a vertical moving turret and an extraction table below the turret.

van Manen teaches a molding apparatus 1 with two mold plates 3, 4, with mold parts 5, 5' for moving towards and away from each other, the robot 8 having a rotary rotor with four arms 9 to 12, see Figure 3, arm 12 with carrier 16 reaches into the mold, the robot can rotate about a central axis, in position A, the robot arm takes up the preforms from the mold, in position B and C, the performs can cool, in lower position D, the performs are removed from the receiving tubes, see [0021] to [0023]. As shown by van Manen, the central pull-out device 21 incorporates pairs of clamping strips 36a, 36b, 37a, 37b, see Figure 6, with the clamping strips moving toward and away from each other and are capable of gripping the preforms from the cooling pipes, see [0028] to [0030]. As seen in Figure 6, the strips includes recesses 40, that are similar to teethes for grasping the articles, see [0034]. It would have been obvious for one of ordinary skill in the art to modify Coran with the extraction table as taught by van Manen below the rotary turret to positively remove the articles from the turret.

Domodossola teaches a molding machine having the mold halves that form the articles, the articles are removed and placed upon a post mold cooling device, this device being a rotating turret block 34 (see Figures 5 and 6) that rotates and further moves in a vertical position such that the articles can be placed upon an extraction device (mandrel block and track system 98, 100). The movement of the turret block 34 allows for accurate placement of the finished parts down upon the mandrel block 98 (see Col. 7, lines 46-50). van Manen teaches the movement of the extraction table to the turret for removal of the articles and Domodossola teaches the movement of the turret down to the mandrel block for the article release, thus both references are

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pertinent as both teaches the turret and/or device that is brought into position with each other on the vertical plane. It would have been obvious for one of ordinary skill in the art to modify Coran, in view of van Manen, with the vertical moving turret block as taught by Domodossola because it allows for accurate placement of the finished parts upon the next device.

Coran, Domodossola, and van Manen are all related to the injection molding arts and for forming of preforms and for post conditioning of the articles after molding, thus one skilled in the art would recognize the features and incorporate these features especially in light of the similar scope of endeavor of the references in which Domodossola, van Manen, and Coran have rotating turrets.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMMANUEL S. LUK whose telephone number is (571)272-1134. The examiner can normally be reached on Monday-Fridays from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/
Supervisory Patent Examiner, Art Unit 1791

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